Underwater Housing for Olympus E-PL5

User Manual

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1. Introduction

Made of sturdy 6061 aluminum, 10Bar housing for the Olympus E-PL5 is the ideal choice for those who favor small cameras. Our housing is equipped with control buttons for all camera functions, bulkhead connector for external flash and interchangeable ports for various lenses. The clear acrylic back cover allows checking on the camera much easier. For closure, the double O-ring and Key-hole Lock design provide ease of use and added security. Now you can enjoy the use of a full function professional DSLR type housing built for a small camera.

2. Specifications

Test Pressure	Housings Individually Tested to 10 Bar (90 m / 300 ft.) Recommended Working Pressure : 60 m
Closure Design	Double O-ring, Key-hole Lock
Body Material	6061 Aluminum, Acrylic
Overall Size	175 x 165 x 128mm (L x W x H) with Zoom Lens Port. 113 x 165 x 128mm (L x W x H) with Flat Port.
Total Weight	Approximately 1.35kg (Housing with Zoom Lens Port) Approximately 1.05kg (Housing with 14/20mm Lens Port)
Buoyancy (with Camera)	Slightly Negative in Salt Water
What's in The Box	Spare Main O-rings + O-ring Removal Tool Silicone O-ring Grease Universal Housing Opening Key Padded Carrying Bag Nylon Lanyard
Optional Accessories	Red / Magenta Filter Port for 14mm or 20mm Semi Dome Port for 7-14mm, 9-18mm, 14-42mm, 14-42mm II, 14-42mmIIR, 14-45mm Lens Conversion Kit for 45mm Macro Lens Dome Port for 8mm Wide Angle Lens

3. Function Controls

Function Control Buttons

(1) Flash On/Off

(2) Power On/Off

(3) Shutter

(4) Playback

(5) Erase

(6) Mode Dial

(7) Fn/

(8)

(9) Movie

(10) Info

(11) Exposure Compensation

(12) AF Target

(13) OK

(14) Flash

(15) Sequential Shooting/Self-Timer

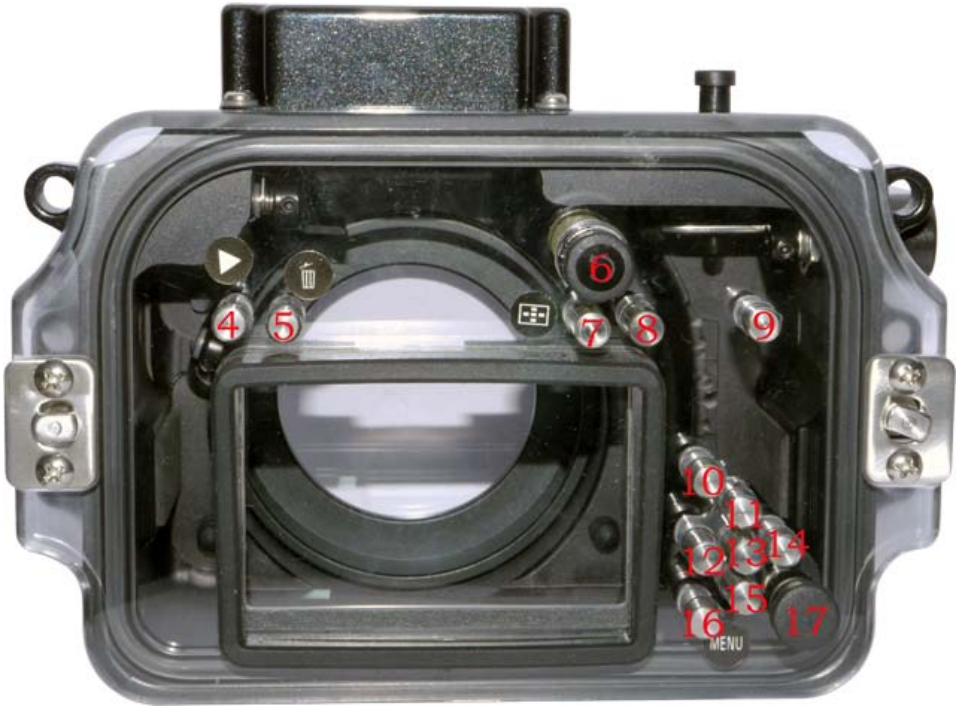
(16) Menu

(17) Control Dial

(18) Zoom Control

(19) Focus Control

(20) Focus/Zoom Control



Control Buttons Details

1. **Flash On/Off**
   - Turn lever up to turn on the flash.
   - Push lever down to turn off the flash
   - Make sure that the flash is turned **OFF** before removing the camera from the housing.
2. **Power On / Off**
   Press to power on or off.
3. **Shutter**
   Press down to activate the shutter.
4. **Playback**
   Press to display most recent photograph or video.
5. **Erase**
   Press to delete an image.
6. **Mode Dial**
   Turn to select the shooting mode.
7. **Fn/**
   Press to activate.
8.
   Press to activate.
9. **Movie**
   Press to start or stop recording video.
10. **Info**
    Press to activate the Info button.
11. **Exposure Compensation**
    Press to activate exposure compensation.
12. **AF Target**
    Press to activate the AF Target button.
13. **OK**
    Press to activate the OK button.
14. **Flash**
    Press to display flash options.
15. **Sequential Shooting / Self-Timer**
    Press to activate.
16. **Menu**
    Press to display the menus.
17. **Control Dial**
    Turn to rotate the Control Dial.
18. **Zoom Control**
    Press and turn to manually adjust the focus or zoom.
19. **Focus Control**
    Press and turn to manually adjust the focus.
20. **Focus/Zoom Control**
    Press and turn to manually adjust the zoom.

Please consult the Olympus E-PL5 camera instruction manual for details of camera functions and settings accessed by each control button.

4. Set-up Instructions

Special Note on Responsibility for Watertight Integrity

Each housing is individually inspected and hydrostatically tested in the factory. However, the responsibility for ensuring the integrity of the watertight seal lies entirely with the user. 10Bar accepts no liability for damage to, or loss of any equipment used with, or placed inside the housing. It is highly recommended that an in-water test of the housing without the camera be carried out before the first dive, after changing ports or alteration of housing configuration. This simple test can be done by lowering the housing with ballast to the expected diving depth and then retrieved to check for leaks.

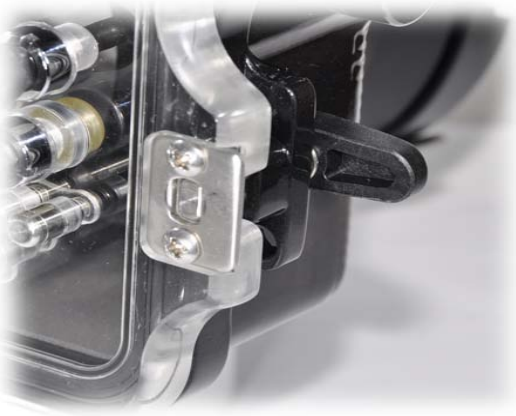
Key-hole Lock

- The clear acrylic lid is secured to the housing by two key-hole locks.
- Key-hole locks are simple, yet extremely secure mechanisms for locking down the housing lid.

Opening the Lid

Make sure the flash on the camera is turned **OFF** before opening the lid.

Turn the levers of the locks perpendicular to the wall
of the housing until the lock is released on both sides.



Pull out the lid by holding on the grip near the lock.

Use the universal key to insert in between the lid and body near the key-hole lock to push off the lid if necessary.

Mounting Gear Rings on the Lens for Manual Focus and Zoom

Gear rings have to be installed in order to manually turn the zoom and focus rings on the lens.

Olympus M. ZUIKO 14-42 f/3.5-5/6 II Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (20)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (18)** on the housing to adjust the focus for this lens.

Olympus M. ZUIKO 14-42 f/3.5-5/6 II R Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (20)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (18)** on the housing to manually adjust the focus.

Olympus M. ZUIKO 14-42 f/3.5-5/6 Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (20)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (18)** on the housing to adjust the focus.

Olympus M. ZUIKO Digital ED 9-18mm f/4.0-5.6 Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (20)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (18)** on the housing to manually adjust the focus.

Panasonic LUMIX G VARIO 7-14 f/4.0 ASPH Lens.

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (18)** on the housing to manually adjust the zoom**.**
- Use **Focus Control Button (19)** on the housing to manually adjust the focus.

Panasonic LUMIX G VARIO 14-45 f/3.5-5.6 ASPH MEGA O.I.S. Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (18)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (19)** on the housing to adjust the focus.

Panasonic LUMIX G VARIO 14-42 f/3.5-5.6 ASPH MEGA O.I.S. Lens

- Slide the Zoom and Focus Gear Rings onto the lens from the direction as shown by the red arrows below.
- Use **Zoom Control Button (18)** on the housing to manually adjust the zoom.
- Use **Focus Control Button (19)** on the housing to manually adjust the focus.

Panasonic LUMIX G VARIO 14-42 f/3.5-5.6 POWER ZOOM O.I.S. Lens

- Slide the Zoom Gear Ring onto the lens as shown below.
- Use **Zoom Control Button (20)** on the housing to manually adjust the zoom.

Dome Port for 8mm Wide Angle Lens

Replacing the Lid

- Replace the lid and make sure the lever is perpendicular to the side wall of the housing.
- Lock the lid by pressing down the lever and turn until the lever is parallel to the side wall of the housing.
- After locking the lid, make a final visual inspection of the main O-ring for contamination.

Note: If the O-ring has formed a good seal, a continuous thin black line, about 0.5 to 1mm in width should be visible where the O-ring is in contact with the lid. Follow this line all the way round the lid as a final check that the seal is good.

Maintaining the O-rings

The O-ring is the main seal in keeping sea water out of the housing. It is an effective barrier only if the O-ring is properly maintained. The O-ring should be inspected before every dive. The following information is provided for your guidance in using and maintaining the O-ring.

- There are two O-rings, one on the lid and one on the housing, which require regular maintenance.
- Remove the O-rings periodically for inspection.
- It is not necessary to remove, clean and re-install the O-rings after every dive provided the O-rings are not contaminated.
- If the housing is to be opened between dives for changing memory card or re-charging battery, make sure the outside of the housing is thoroughly towel dried before opening.
- After servicing the camera, replace the lid right away.
- Before replacing the lid, check the O-rings and O-ring recesses, making sure that no contaminants such as dust, hair, salt, sand etc., has fallen onto them.
- The O-rings should be inspected every time the lid is opened and maintenance carried out only if necessary.

Inspection, Cleaning and Re-installation of the O-rings

Tools

- Soft cotton buds that are free of chemicals or contaminants such as loose fibers.
- Silicone grease supplied with the housing or other types of silicone grease specifically for underwater camera equipment can also be used.

Procedure

The following procedure should be carried out on a clean, firm, level surface (e.g., on a table) to prevent slipping especially when diving from a boat.

- The O-ring can be extracted using the O-ring extractor tool that came with the housing, or push with the flats of both thumbs or index fingers to gently stretch the O-ring on two adjacent sides thus making a small loop protruding around the corner. The loop can then be grasped and the O-ring pulled over the lip.

- Clean the O-ring recess (the square groove where the O-ring sits) with a cotton bud.
- Inspect the surface of the O-ring for contaminants and damages such as cuts or tears. This should be done visually and by running the O-ring between thumb and index finger, sensing any textural abnormalities on the surface.

- **If the O-ring is damaged or suspected of being damaged, discard it immediately**.
- Spare O-rings are supplied with your housing, or replacement O-rings can be ordered from 10Bar.
- If the O-ring is contaminated, clean it with a clean cloth.
- Re-inspect the O-ring after cleaning.
- Once the O-ring has been inspected and verified good for use, apply and distribute evenly a **SMALL** amount of silicone grease to the surface of the O-ring.
- Replace the O-ring into the groove.
- Run a finger over the O-ring to make sure it is seated properly.

5. Use & Care of Housing

Pre Dive Function Check

- Check O-ring is in the groove on the housing and the clear acrylic lid.
- Check housing is closed properly.
- Check battery and memory card status on the LCD display.
- Check control knobs and zoom function.
- Check if sync port is properly connected or rubber protective cap is securely in place.

General Operations

- The control levers and push buttons consist of internal double O-ring seals on a stainless steel shaft. This arrangement is very reliable. As a precaution, avoid excessively rapid movements when operating the controls, causing possible deformation of the O-rings.
- Also please allow for the fact that the camera takes a second or two to power up.
- If the camera does not appear to respond to a control button activation, make sure that no other control buttons on the housing are pressed, thus locking out other actions.
- Always wear the wrist strap; it is easy to inadvertently let go of the housing if you are distracted.
- The body & lid of the housing are made of 6061 aluminum and acrylic respectively. 6061 aluminum is selected for its outstanding corrosion resistance, strength, and toughness, while acrylic for its excellent transparency and having a high gloss surface. Although acrylic and 6061 aluminum have good resistance to weathering, long-term exposure to sunlight should be avoided.

Avoid submerging the housing in hot water for a prolonged period of time or in a cleansing tank which is directly under a hot sun where the water may get heated.

Cleaning & Storage

- It is good practice to rinse off your housing with fresh water after every dive.
- Avoid exposure to fine sand.
- After a series of 10 or more dives, e.g., after a dive holiday, the housing should be immersed in warm water for 2-3 hours to dissolve any salt deposits that may have built up.
- No chemical cleaners should ever be used.

Important!!! **For long term storage, please remove the O-rings from the housing body and lid.**

Transportation

All external attachments should be removed and the housing wrapped in foam or bubble wrap for transportation.

Accidents

The impact resistance of our aluminum housing is excellent. In the event that your housing encountered an impact force (e.g., being dropped), the alignment of the housing may have been altered. It is essential that you stop diving with the housing and send it to 10Bar immediately for servicing. Put a note inside the housing stating the nature of the accident to assist our technicians in assessing the damage.

6. Service

To ensure the continued performance of your housing, it should be sent in to us for servicing annually, or after every 200 dives, whichever is earlier. A full service will include:

- Inspect all components for wear or damage and report if repair is necessary.
- Clean all sealing surfaces.
- Replace all O-rings.
- Hydrostatic pressure test to 10 Bar.

Note: Replacement of damaged components may require additional cost.

7. Warranty

The warranty is valid for two years from the date of purchase. The warranty applies only to the housing itself. 10Bar does not accept any liability either implicit or otherwise for any equipment housed inside, or used together with the housing. In the event of the housing flooded within the warranty period, 10Bar will repair or replace the housing. Disassembly of the housing will invalidate the warranty. To register a warranty, please complete the form below and return a copy by fax, email or mail to:

10Bar Underwater Housings
Unit D, 5/F., Wing Hin Factory Building
31-33 Ng Fong St., San Po Kong
Kowloon
Hong Kong

Tel.: (852) 2573 3228
Fax.: (852) 2811 9180
Email: service@10bar.com
Website: http://www.10bar.com

(Copy to be retained by user)

Housing Type :	**Date of Purchase :**
Serial Number : (Labeled inside housing)	**Dealer :**
Owner's Name :	**e-mail :**
Owner's Address :	**Tel :** **Fax :**

Please keep this manual for future reference

(Note: due to continuous improvements on our products, the latest model of the housing may differ slightly from those described in this document).

(Copy to be returned to 10 Bar Underwater Housings)

Housing Type :	**Date of Purchase :**
Serial Number : (Labeled inside housing)	**Dealer :**
Owner's Name :	**e-mail :**
Owner's Address :	**Tel :** **Fax :**